

Amendment under 37 C.F.R. §1.111
Attorney Docket No. 032148
Application No. 10/743,806

AMENDMENTS TO THE CLAIMS

The listing of claims below replaces all prior versions of claims in the application.

1. (Currently Amended): A field-sequential type display device for performing a display by synchronizing successive switching of lights of only three colors, which consist of red, green and blue, to be incident on a display element with light control in said display element based on display data of each color corresponding to an image to be displayed, comprising:

a detecting unit for detecting a grayscale level of maximum brightness of the display data for each color, the grayscale level of the maximum brightness being variable for each of three sub-frames corresponding to the three colors throughout performing the display; [[and]]

[[an]] a light control variable adjusting unit for adjusting, independently for each color, an intensity of light incident on said display element and a light control variable in said display element, based on the respective grayscale level of each color detected in said detecting unit; and

a transmittance adjusting unit for adjusting a transmittance of said display element,

wherein

said transmittance adjusting unit adjusts a transmittance of maximum grayscale level among grayscale levels in a sub-frame corresponding to a color detected by said detecting unit, to be larger than said transmittance of maximum grayscale level at the time when said intensity of light incident on said display element becomes maximum,

said light control variable adjusting unit adjusts said intensity of light incident on said display element and said light control variable in said display element for each light of a color

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among said three colors, in accordance with said transmittance adjusted by said transmittance adjusting unit, and
the display is performed with said adjusted light control variable.

2-3. (Cancelled)

4. (Currently Amended): The display device of claim [[3]] 1, wherein when obtaining brightness of a grayscale level other than the grayscale level of maximum brightness, said light control variable adjusting unit adjusts the light control variable in said display element.

5. (Original): The display device of claim 1, wherein an intensity of light incident on said display element after adjusting the intensity of light and the light control variable by said adjusting unit is smaller than an intensity of light incident on said display element without performing the adjustments.

6. (Currently Amended): The display device of claim 1, wherein an incident region of light to be incident on said display element is divided, and the detection of a grayscale level by said detecting unit and the adjustments of the intensity of light and the light control variable by said adjusting unit are performed for each of the divided incident regions.

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7. (Original): The display device of claim 1, wherein
said display element is a liquid crystal display element.

8. (Original): The display device of claim 7, wherein
a liquid crystal material used in said liquid crystal display element has spontaneous
polarization.

9. (Original): The display device of claim 1, wherein
said display element is a digital micro mirror device.

10. (Original): The display device of claim 1, wherein
the lights of a plurality of colors to be incident on said display element are red light,
green light, and blue light.

11. (Original): The display device of claim 1, wherein
the lights of a plurality of colors to be incident on said display element are red light,
green light, blue light, and white light.

12. (Original): The display device of claim 11, further comprising a converting unit for
converting red, green and blue display data into red, green, blue and white display data,

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wherein said detecting unit detects grayscale levels of display data obtained by said converting unit.

13. (Withdrawn): A display device for performing a color display by synchronizing incidence of white light on a display element having color filters of a plurality of colors with light control in said display element based on display data of each color corresponding to an image to be displayed, comprising:

a detecting unit for detecting a grayscale level of the display data for each color; and
an adjusting unit for adjusting, independently for each color, an intensity of white light incident on said display element and a light control variable in said display element, based on the respective grayscale level of each color detected in said detecting unit.

14. (Currently Amended): A display method for performing a field-sequential type display by synchronizing successive switching of lights of only three colors, which consist of red, green and blue, to be incident on a display element with light control in said display element based on display data of each color corresponding to an image to be displayed, comprising:

detecting with a detecting unit, a grayscale level of maximum brightness of the display data for each color, the grayscale level of the maximum brightness being variable for each of three sub-frames corresponding to the three colors throughout performing the display; [[and]]

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adjusting, independently for each color, with a light control variable adjusting unit an intensity of light incident on said display element and a light control variable in said display element, based on the respective grayscale level of each color; and

adjusting with a transmittance adjusting unit, a transmittance of said display element,
wherein

said transmittance adjusting unit adjusts a transmittance of maximum grayscale level
among grayscale levels in a sub-frame corresponding to a color detected by said detecting unit,
to be larger than said transmittance of maximum grayscale level at the time when said intensity
of light incident on said display element becomes maximum,

said light control variable adjusting unit adjusts said intensity of light incident on said
display element and said light control variable in said display element for each light of a color
among said three colors, in accordance with said transmittance adjusted by said transmittance
adjusting unit, and

the display is performed with said adjusted light control variable.

15. (Withdrawn): A display method for performing a color display by synchronizing incidence of white light on a display element having color filters of a plurality of colors with light control in said display element based on display data of each color corresponding to an image to be displayed, comprising:

detecting a grayscale level of the display data for each color; and

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adjusting, independently for each color, an intensity of white light incident on said display element and a light control variable in said display element, based on the respective grayscale level of each color.